



# Technical Report

prepared for:

## **Environmental Restoration**

110 Granby Street  
Bloomfield CT, 06002  
**Attention: Chris May**

Report Date: 11/22/2013  
**Client Project ID: BS2-76**  
York Project (SDG) No.: 13K0811

CT Cert. No. PH-0723

New Jersey Cert. No. CT-005



New York Cert. No. 10854

PA Cert. No. 68-04440

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Report Date: 11/22/2013  
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 York Project (SDG) No.: 13K0811

### Environmental Restoration

110 Granby Street  
 Bloomfield CT, 06002  
 Attention: Chris May

## Purpose and Results

This report contains the analytical data for the sample(s) identified on the attached chain-of-custody received in our laboratory on November 18, 2013 and listed below. The project was identified as your project: **BS2-76**.

The analyses were conducted utilizing appropriate EPA, Standard Methods, and ASTM methods as detailed in the data summary tables.

All samples were received in proper condition meeting the customary acceptance requirements for environmental samples except those indicated under the Notes section of this report.

All analyses met the method and laboratory standard operating procedure requirements except as indicated by any data flags, the meaning of which are explained in the attachment to this report, and case narrative if applicable.

The results of the analyses, which are all reported on dry weight basis (soils) unless otherwise noted, are detailed in the following pages.

Please contact Client Services at 203.325.1371 with any questions regarding this report.

<u>York Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>
13K0811-01	BSS-1	Soil	11/14/2013	11/18/2013
13K0811-02	BSS-2	Soil	11/14/2013	11/18/2013
13K0811-03	BSS-3	Soil	11/14/2013	11/18/2013

## General Notes for York Project (SDG) No.: 13K0811

1. The RLs and MDLs (Reporting Limit and Method Detection Limit respectively) reported are adjusted for any dilution necessary due to the levels of target and/or non-target analytes and matrix interference. The RL(REPORTING LIMIT) is based upon the lowest standard utilized for the calibration where applicable.
2. Samples are retained for a period of thirty days after submittal of report, unless other arrangements are made.
3. York's liability for the above data is limited to the dollar value paid to York for the referenced project.
4. This report shall not be reproduced without the written approval of York Analytical Laboratories, Inc.
5. All samples were received in proper condition for analysis with proper documentation, unless otherwise noted.
6. All analyses conducted met method or Laboratory SOP requirements. See the Qualifiers and/or Narrative sections for further information.
7. It is noted that no analyses reported herein were subcontracted to another laboratory, unless noted in the report.
8. This report reflects results that relate only to the samples submitted on the attached chain-of-custody form(s) received by York.

Approved By:



Benjamin Gulizia  
 Laboratory Director

Date: 11/22/2013





### Sample Information

**Client Sample ID:** BSS-1 **York Sample ID:** 13K0811-01

**York Project (SDG) No.** 13K0811 **Client Project ID** BS2-76 **Matrix** Soil **Collection Date/Time** November 14, 2013 3:00 pm **Date Received** 11/18/2013

#### Lead TCLP by EPA 6010

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA 3010A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	0.327		mg/L	0.00300	0.00300	1	EPA 6010C/1311	11/22/2013 12:26	11/22/2013 14:56	MW

#### TCLP Extraction for METALS EPA 1311

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1.00	1	EPA 1311	11/21/2013 18:49	11/22/2013 14:47	KK

### Sample Information

**Client Sample ID:** BSS-2 **York Sample ID:** 13K0811-02

**York Project (SDG) No.** 13K0811 **Client Project ID** BS2-76 **Matrix** Soil **Collection Date/Time** November 14, 2013 3:00 pm **Date Received** 11/18/2013

#### Lead TCLP by EPA 6010

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA 3010A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	0.281		mg/L	0.00300	0.00300	1	EPA 6010C/1311	11/22/2013 12:26	11/22/2013 15:01	MW

#### TCLP Extraction for METALS EPA 1311

#### Log-in Notes:

#### Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1.00	1	EPA 1311	11/21/2013 18:49	11/22/2013 14:47	KK

### Sample Information

**Client Sample ID:** BSS-3 **York Sample ID:** 13K0811-03

**York Project (SDG) No.** 13K0811 **Client Project ID** BS2-76 **Matrix** Soil **Collection Date/Time** November 14, 2013 3:00 pm **Date Received** 11/18/2013

#### Lead TCLP by EPA 6010

#### Log-in Notes:

#### Sample Notes:



## Sample Information

**Client Sample ID:** BSS-3

**York Sample ID:** 13K0811-03

York Project (SDG) No.

Client Project ID

Matrix

Collection Date/Time

Date Received

13K0811

BS2-76

Soil

November 14, 2013 3:00 pm

11/18/2013

Sample Prepared by Method: EPA 3010A

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
7439-92-1	Lead	0.278		mg/L	0.00300	0.00300	1	EPA 6010C/1311	11/22/2013 12:26	11/22/2013 15:06	MW

## TCLP Extraction for METALS EPA 1311

Log-in Notes:

Sample Notes:

Sample Prepared by Method: EPA SW 846-1311 TCLP ext. for metals

CAS No.	Parameter	Result	Flag	Units	MDL	RL	Dilution	Reference Method	Date/Time Prepared	Date/Time Analyzed	Analyst
	TCLP Extraction	Completed		N/A	1.00	1.00	1	EPA 1311	11/21/2013 18:49	11/22/2013 14:47	KK



## Analytical Batch Summary

**Batch ID:** BK31101      **Preparation Method:** EPA SW 846-1311 TCLP ext. for metals      **Prepared By:** KK

YORK Sample ID	Client Sample ID	Preparation Date
13K0811-01	BSS-1	11/21/13
13K0811-02	BSS-2	11/21/13
13K0811-03	BSS-3	11/21/13
BK31101-BLK1	Blank	11/21/13

**Batch ID:** BK31117      **Preparation Method:** EPA 3010A      **Prepared By:** MW

YORK Sample ID	Client Sample ID	Preparation Date
13K0811-01	BSS-1	11/22/13
13K0811-02	BSS-2	11/22/13
13K0811-03	BSS-3	11/22/13
BK31117-BLK1	Blank	11/22/13
BK31117-BLK2	Blank	11/22/13

**Metals by ICP - Quality Control Data****York Analytical Laboratories, Inc.**

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
<b>Batch BK31117 - EPA 3010A</b>											
<b>Blank (BK31117-BLK1)</b>								Prepared & Analyzed: 11/22/2013			
Lead	ND	0.00300	mg/L								
<b>Blank (BK31117-BLK2)</b>								Prepared & Analyzed: 11/22/2013			
Lead	ND	0.00300	mg/L								



## Wet Chemistry Parameters - Quality Control Data

### York Analytical Laboratories, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source* Result	%REC	%REC Limits	Flag	RPD	RPD Limit	Flag
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#### Batch BK31101 - EPA SW 846-1311 TCLP ext. for metals

#### Blank (BK31101-BLK1)

Prepared: 11/21/2013 Analyzed: 11/22/2013

TCLP Extraction	Completed	1.00	N/A								
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## Notes and Definitions

EXT-COMP Completed

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ND	Analyte NOT DETECTED at the stated Reporting Limit (RL) or above.
RL	REPORTING LIMIT - the minimum reportable value based upon the lowest point in the analyte calibration curve.
MDL	METHOD DETECTION LIMIT - the minimum concentration that can be measured and reported with a 99% confidence that the concentration is greater than zero. If requested or required, a value reported below the RL and above the MDL is considered estimated and is noted with a "J" flag.
NR	Not reported
RPD	Relative Percent Difference
Wet	The data has been reported on an as-received (wet weight) basis
Low Bias	Low Bias flag indicates that the recovery of the flagged analyte is below the laboratory or regulatory lower control limit. The data user should take note that this analyte may be biased low but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
High Bias	High Bias flag indicates that the recovery of the flagged analyte is above the laboratory or regulatory upper control limit. The data user should take note that this analyte may be biased high but should evaluate multiple lines of evidence including the LCS and site-specific MS/MSD data to draw bias conclusions. In cases where no site-specific MS/MSD was requested, only the LCS data can be used to evaluate such bias.
Non-Dir.	Non-dir. flag (Non-Directional Bias ) indicates that the Relative Percent Difference (RPD) (a measure of precision) among the MS and MSD data is outside the laboratory or regulatory control limit. This alerts the data user where the MS and MSD are from site-specific samples that the RPD is high due to either non-homogeneous distribution of target analyte between the MS/MSD or indicates poor reproducibility for other reasons.

If EPA SW-846 method 8270 is included herein it is noted that the target compound N-nitrosodiphenylamine (NDPA) decomposes in the gas chromatographic inlet and cannot be separated from diphenylamine (DPA). These results could actually represent 100% DPA, 100% NDPA or some combination of the two.

For this reason, York reports the combined result for n-nitrosodiphenylamine and diphenylamine for either of these compounds as a combined concentration as Diphenylamine.

If Total PCBs are detected and the target aroclors reported are "Not detected", the Total PCB value is reported due to the presence of either or both Aroclors 1262 and 1268 which are non-target aroclors for some regulatory lists.

2-chloroethylvinyl ether readily breaks down under acidic conditions. Samples that are acid preserved, including standards will exhibit breakdown. The data user should take note.

Certification for pH is no longer offered by NYDOH ELAP.

Semi-Volatile and Volatile analyses are reported down to the MDL, with values between the MDL and the RL being "J" flagged as estimated results.

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**YORK**  
ANALYTICAL LABORATORIES, INC.  
20 RESEARCH DR. STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

# YORK

**ANALYTICAL LABORATORIES, INC.**  
120 RESEARCH DR. STRATFORD, CT 06615  
(203) 325-1371 FAX (203) 357-0166

# Field Chain-of-Custody Record

**NOTE:** York's Std. Terms & Conditions are listed on the back side of this document. This document serves as your written authorization to York to proceed with the analyses requested. Your signature binds you to York's Std. Terms & Conditions unless superseded by written contract.

## YOUR INFORMATION

Company:	ER
Address:	110 Cranby St. Bloomfield, CT
Phone No:	860-478-0103
Contact Person:	Chris May
E-Mail Address:	C.may@erllc.com

## Report To:

Company: **ER**  
Address:  
Phone No: **860-478-0103**  
Attention: **Chris May**  
E-Mail Address: **C.May@erfc.com**

Invoice To:

Company: *ER*  
Address: \_\_\_\_\_  
Phone No.: \_\_\_\_\_  
Attention: *Nicole Zima*  
E-Mail Address: *N.zima@erle.com*

## YOUR Project ID

852-76  
Purchase Order No. 852-76  
Samples from: CT NY NJ

## Turn-Around Time

☐ Rush - Same Day  
☐ Rush - Next Day  
☐ Rush - Two Day  
☐ Rush - Three Day  
☐ Rush - Four Day  
☐ Standard (5-7 Days)

## Report Type/Deliverables

Summary Report  
Summary w/ QA Summary  
CT RCP Package  
NY ASP A Package  
NY ASP B Package  
Electronic Deliverables  
EEDD (Specify Type)  
Excel

*Print Clearly and Legibly. All Information must be complete. Samples will NOT be logged in and the turn-around time clock will not begin until any questions by York are resolved.*

Samples Collected/Authorized By (Signature)

Chris May  
Name (printed)

**Sample Identification**

Date Sampled

### Sample Matrix

	Container
Choose Analyses Needed from the Menu Above and Enter Below	

BSS-1	11-14-17	S	Volatile Organics 8260 Semi Vol 8270 Pest Herb PC8	3 - 8 oz/g/lot
BSS-2	11-14-18	S	PCRA 8 metals Flashpoint Ignitability Total Solids, pH	3 - 8 oz/g/lot
BSS-3	11-14-18	S	Reactive Cyanide, Reactive Solids T PH	3 - 8 oz/g/lot

[illegible][illegible][illegible]

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[illegible]

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## Comments

Please run TCLP for any totals exceeding the 20x rule.

**Preservation**

**Check those Applicable**

4°C	Frozen	HCl	MeOH	HNO <sub>3</sub>	H <sub>2</sub> SO <sub>4</sub>	NaOH
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Temperature	
ZnAc	Ascorbic Acid
	Other

 11-18-13 1210	on Receipt
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Samples Relinquished By	Date/Time	Samples Received By	Date/Time

2. Schick	11/18	13	12/13	4.9	3.0
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Samples Relinquished By	Date/Time	Samples Received in LAB by	Date/Time